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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,743	12/09/2003	Stephen H. Li	TI-36014	5121
23494 7590 08/24/2007 TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			EXAMINER HUYNH, KIM T	
			ART UNIT 2111	PAPER NUMBER
			NOTIFICATION DATE 08/24/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@ti.com
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Office Action Summary	Application No. 10/731,743	Applicant(s) LI ET AL.	
	Examiner Kim T. Huynh	Art Unit 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12 and 15-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 12, 15-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Kelly et al. (US Patent 6,760,793)

As per claim 12, Kelly discloses an arbitration circuit for an output port, comprising:

- a FIFO queue(fig.8, 831 ie input buffer) containing a head pointer (col.4, lines 50-67) to stored in a common memory for a plurality of ports and a plurality of characterizing data for each packet received at an input port(col.8, lines 40-65), wherein a data portion of the packet is stored only in the common memory (col.9, lines 35-64, col.4, lines 50-65 ie output buffer also common memory which included the selected packets which included data portion and head pointer for each transaction)the queue forming a look-up table to determine which data will be sent out from the output port; (col.9, lines 1-21)

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- a plurality of arbitration circuits coupled to the look-up table for selecting the next packet to be sent out corresponding to a preselected characterizing datum (col.9, lines 1-48 ie arbiter selects packets via switch to output buffer sets wherein buffer sets implies table) wherein the head pointer of the selected packet is utilized to select the packet from a common memory for the plurality of arbitration circuits. [(col.4, lines 50-65, ie a packet contain information transferring which allows differentiation of transactions from different devices) , (col.9, lines 35-48,), (col.10, lines 27-49, ie table 104 provided by the three buffer sets which provide transaction ordering)]

As per claim 15, Kelly discloses wherein the arbitration circuit is the arbitration circuit for one port of a PCI Express(revision 1.0a) switch (fig.8, 801). (col.9, lines 1-48)

As per claim 16, Kelly discloses wherein the common memory is shared by all ports in the PCI Express switch. (col.9,lines 1-48 ie I/O interconnect)

As per claim 17, Kelly discloses wherein the common memory is a crossbar memory. (col.9, lines 1-48 ie x-bar switch)

As per claim 18, Kelly discloses wherein the crossbar memory is a common port,

virtual channel or type memory. (col.9, lines 35-48 ie virtual channel)

As per claim 19, Kelly discloses wherein the PCI Express(revision 1.0a) switch (fig.8, 801 ie switch) comprises:

- a plurality of ports; (fig.8, 863 ie I/O interconnect)
- a plurality of port controllers(fig.8, 859 ie interfaces), each controller being coupled to one of the ports;
- a local bus(fig.3, 311 ie internal bus) coupling the port controllers to a controller subsystem; and (col.4, lines 29-49)
- a single crossbar memory (fig.8, 833 ie x-bar switch) coupled to each of the port controllers and the controller subsystem, the crossbar memory serving as a common port or virtual channel memory for each of the port controllers. (col.9, lines 1-48)

As per claim 20, Kelly discloses wherein the crossbar memory is a common port, virtual channel or type memory. (col.9, lines 35-48 ie virtual channel)

As per claim 21, Kelly discloses wherein the crossbar memory is used as the replay memory by storing the head pointer in the port controller.(col.9, lines 1-48)

Response to Amendment

3. Applicant's amendment filed on 5/29/07 have been fully considered but does not place the application in condition for allowance.

a. In response to applicant's argument that Kelly does not disclose a head pointer stored in a common memory for a plurality of ports. Examiner respectfully disagrees. As Kelly notes at col.9, lines 35-64 & col.4, lines 50-65 ie output buffer is common memory which included the selected packets which included data portion and head pointer for each transaction. Each of transaction is represent in each packet which contain the information required to determine the characteristics and purpose of each transaction which is address and data information. Thus, the prior art teaches the invention as claimed and the amended claims do not distinguish over the prior art as applied.

Conclusion

4. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

5. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9:00AM- 6:00PM. If attempts to*

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reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached at (571)272-3632 or via e-mail addressed to [mark.rinehart@uspto.gov].

The fax phone numbers for the organization where this application or proceeding is assigned are (571)273-8300 for regular communications and After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

Kim Huynh

August 14, 2007



MARK H. RINEHART
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100